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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LANDAU, MATTHEW C

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/723,329

Applicant(s)

JENDICK, MANFRED

Examiner

Matthew Landau

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49-60 and 67 is/are rejected.
- 7) ☒ Claim(s) 61-66 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 49-59 and 67 are rejected under 35 U.S.C. 102(e) as being anticipated by Brodsky et al. (US Pat. 6,489,985, hereinafter Brodsky).

In regards to claim 49, Figure 1 of Brodsky discloses a laser unit providing markings on a surface comprising: a beam generator 12/16 configured to generate a beam of laser radiation configured to provide said markings in a metal (col. 11, lines 9-13); a beam focuser 20 (flat field lens) (col. 10, lines 40-44), associated with the beam generator, that focuses the laser beam onto said surface; of a beam deflector 20 (galvanometer mirrors) (col. 6, lines 1-10), that effects a controlled deflection of the laser beam; a control unit 24 having a memory that receives and stores a pattern to be engraved on said surface and a processor programmed to operate said laser unit to produce said pattern on said surface of said strip, wherein the control unit is set to control said laser unit to provide laser engraved markings at exact locations on said surface (col. 6, lines 12-32). Note that it is inherent that the personal computer 24 has a memory, and this memory stores the pattern. It is also inherent that the computer has a processor. Also note that in a claim drawn to a laser unit, the type of material the laser engraves/marks is merely an intended use of

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the laser beam. It follows that any processing performed on the engraved/marked material is also intended use. Therefore, the intended use limitations “on a surface of a continuous strip of metal”, “said surface of said strip”, and “when said strip intermittently...” do not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

In regards to claim 50, the intended limitation “wherein said laser unit is operable to provide about 1-5 μm deep engravings in said surface of said strip” does not structurally distinguish the laser unit of the claimed invention over the laser unit of Brodsky.

In regards to claim 51, Brodsky discloses said processor controls the beam generator 12/16 and the beam deflector 20 (col. 5, line 60 – col. 6, line 32). The intended use limitation “such that at least one pulse of laser radiation outputted by the beam generator forms visible pits in said surface...” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky. However, it should be noted that the “strokes” of Brodsky (col. 6, lines 18-20) are visible depressions in the surface, and therefore can be considered pits.

In regards to claim 52, Brodsky discloses said processor controls a time period between subsequent pulses (i.e., pulse rate) (col. 5, lines 60-65). The intended use limitation “such that each pulse has sufficient energy to generate one of said pits” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

In regards to claim 53, it is inherent that the processor calculates the position of the pattern markings before operating the laser.

In regards to claim 54, the intended use limitation “wherein said processor is programmed to determine an optimum engraving path...” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

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In regards to claim 55, Brodsky discloses the pattern comprises a number of characters (col. 6, lines 15-18).

In regards to claim 56, Figure 2 of Brodsky discloses the characters are provided sequentially one after another on said surface.

In regards to claim 57, the intended use limitation “wherein said marked articles are opening tabs to be attached to ends for cans” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

In regards to claim 58, the intended use limitation “wherein said laser is operable to provide the laser engraved markings on said surface of said strip such that...” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

In regards to claim 59, the intended use limitation “wherein said control unit is set to control the feeding rate of the strip into the processing apparatus” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

In regards to claim 67, the intended use limitation “wherein a height of each of the characters is about 1.4-2mm” does not structurally/patentably distinguish the claimed invention over the laser unit of Brodsky.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 49, 50, 53-60, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US Pat. 6,080,958, hereinafter Miller) in view of Brodsky.

In regards to claims 49 and 60, Figures 1 and 2A of Miller disclose a laser unit providing markings 114 on a surface of a continuous strip of metal 312 comprising: a beam generator 212 configured to generate a beam 218 of laser radiation configured to provide said markings in a metal; a beam deflector 216, that effects a controlled deflection of the laser beam; a control unit 236 having a memory that receives and stores a pattern to be engraved on said surface and a processor (column 5, lines 60-65) programmed to operate said laser unit to produce said pattern on said surface of said strip, wherein the control unit is set to control said laser unit to provide laser engraved markings at exact locations on said surface when said strip intermittently is in an immobilized condition (column 7, lines 23-35) before being fed into a processing apparatus 248 structured to mechanically shape the thus-marked strip into marked articles to be included in cans (column 3, lines 64 to column 2, line 9). Miller also discloses said processor is programmed to control said laser unit to provide a large number of visible pits in said surface to produce said pattern within a dwell time when the strip intermittently is in an immobilized condition (column 7, lines 23-35), the dwell time being less than about 60 ms (column 4, lines 49-52). The difference between Miller and the claimed invention is the beam deflector being arranged intermediate the beam generator and a beam focuser. Using a beam focuser in this type of configuration is extremely common in the art. For example, Figure 2 of Brodsky discloses a beam focuser (flat-field lens) positioned between a target 62 and a beam deflector (galvanometer) (col. 10, lines 25-43). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of Miller by

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using the beam focuser of Brodsky for the purpose of focusing the laser beam, thereby increasing the marking precision. It is also obvious to use the flat-field lens of Brodsky for the purpose of ensuring the beam is perpendicular to the surface to be marked, which is well known in the art.

In regards to claim 50, the intended limitation “wherein said laser unit is operable to provide about 1-5 μm deep engravings in said surface of said strip” does not structurally/patentably distinguish the laser unit of the claimed invention over the laser unit of Miller.

In regards to claim 53, Miller discloses the processor is adapted to, based on said pattern in said memory, calculate positions of all of said pits on said surface before operating said laser unit to produce said pattern (column 6, line 67 to column 7, line 35).

In regards to claim 54, the intended use limitation “wherein said processor is programmed to determine an optimum engraving path...” does not structurally/patentably distinguish the laser unit of the claimed invention over the laser unit of Miller.

In regards to claim 55, Miller discloses said pattern comprises a number of characters (column 5, lines 20-30).

In regards to claim 56, Miller discloses said processor is programmed to control the beam deflector 216 such that said characters are provided sequentially one after another on said surface (column 7, lines 23-35).

In regards to claim 57, Miller discloses the marked articles are opening tabs to be attached to ends for cans (column 8, lines 40-55).

In regards to claim 58, Figure 1 of Miller discloses said laser unit is operable to provide the laser engraved markings on said surface of said strip such that each of said marked tabs have

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said markings on a tab surface between an opening in said tab and bent edge portions of the tab.

In regards to claim 59, the intended use limitation “wherein said control unit is set to control the feeding rate of the strip into the processing apparatus” does not structurally/patentably distinguish the laser unit of the claimed invention over the laser unit of Miller.

In regards to claim 67, Miller discloses a character height of about 3mm (col. 5, lines 25-28), which is considered to be about 2mm.

Allowable Subject Matter

Claims 61-66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claim 49-67 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (703) 305-4396.

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The examiner can normally be reached from 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (703) 308-2772. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



ALLAN R. WILSON
PRIMARY EXAMINER

Matthew C. Landau

Examiner

January 10, 2004